
ENVIRONMENTAL Fact Sheet



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Proper Procedures for Removing Pavement and Curbing Containing Asbestos

General

For more than a decade, the one inch base course of hot bituminous bridge pavement (a 2 layer mix) specified for use in New Hampshire, (Standard Specifications for Road and Bridge Construction #403.911 and 403.912) contained approximately 1 1/2% asbestos fiber meeting the requirements of Canadian Quebec Miner Specification Grade 7M. The 1" Wearing Course (upper layer) of pavement contained no asbestos fiber. The small amount of asbestos fiber in the bottom layer was used in an attempt to make the pavement impervious to salt brine, in a practice that started in the late 1960's and ended on May 7, 1979.

Although the asbestos containing asphalt pavement doesn't present a health hazard as long as it remains intact and is not abraded or ground up, there are certain items to be aware of if complete removal of the bridge pavement or replacement of the wearing course is necessary. Complete removal of both courses together can be treated as a bonded mix of material having an average of 3/4 of 1% asbestos fiber. Removal of just the wearing course should involve no asbestos. However, after normal wear, the 1" wearing course often becomes something less than 1" in thickness depending on time and use. In this case, a specification calling for removal of 1" of pavement might put the removal efforts in a position of disturbing the asbestos in the base course. Removal of the base course by itself, since the percentage of asbestos as a portion of the total batch is in excess of 1%, is regulated under the National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 61 Subpart M and the Occupational Safety and Health Administration (OSHA) regulations 29 CFR 1926.1101. The New Hampshire Department of Environmental Services (Department) recommends the following with regard to removal and disposal of pavement containing asbestos:

1. Removal methods which could produce airborne dust should be avoided.
2. Activities such as milling, grinding, or grooving which could cause emissions levels above the Permissible Exposure Level (PEL) of 0.1 fibers per cubic centimeter must be controlled.
3. If asphalt pavement containing asbestos is milled, grounded, or grooved, water should be applied during the operation to control dust. A wet-vacuum cleaner should follow the processing operation to remove any residue. The grindings, millings, or sawings must be placed in a landfill approved for asbestos disposal as well as asphalt disposal.
4. The asbestos containing asphalt pavement can not be recycled.
5. Asphalt pavement removed in chunk size by conventional methods (peeling) must be placed in a landfill approved for both asphalt and asbestos. If any dust is generated, the area should be wet down and this procedure continued as necessary to control dust.

6. The above information should be put in bridge specifications to insure that all contractors are bidding on similar items/procedures.

Another item of concern is bituminous concrete curbing manufactured to meet State Specifications as stated in "Standard Specifications for Road and Bridge Construction, Section 609, Item 2.6.1". The production of this curbing required the use of asbestos fibers meeting Canadian Quebec Miner Specification Grade 7M. The fiber was to be uniformly incorporated in the dry mix in the proportion of approximately 2 1/2% of the total batch. This curbing, used from 1965 through 1979, can be found along the interstate and state highways as well as any industrial or residential application which required conformance to State Specification. To minimize fiber release, the Department recommends the following with regard to removal and disposal of curbing containing asbestos:

1. Removal methods which could produce airborne dust should be avoided.
2. Curbing breakage should be minimized during removal.
3. The bituminous concrete curbing (BCC) can not be recycled.
4. The BCC must be placed in a landfill approved for both asphalt and asbestos disposal.
5. Contract specifications should dictate disposal requirements and require proof of proper disposal at a permitted facility.

Further Information

For additional information, contact:

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